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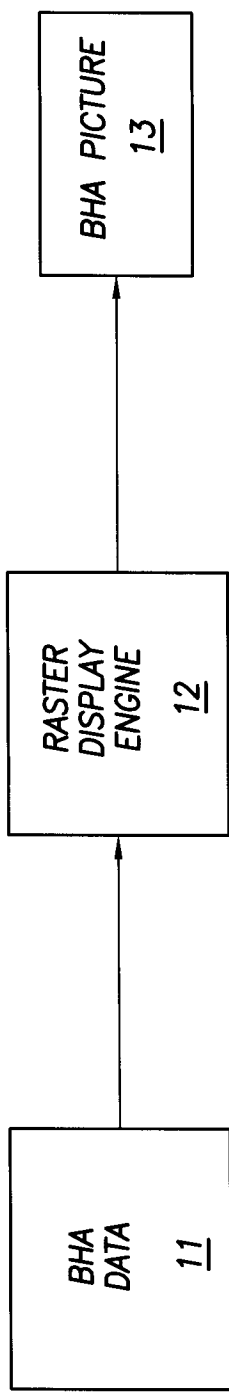


FIG. 1
(PRIOR ART)

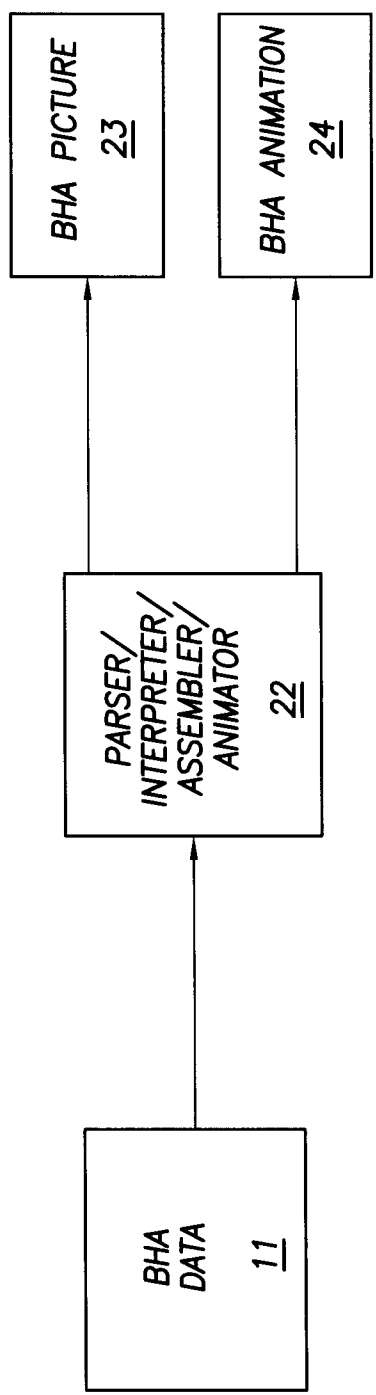


FIG. 2

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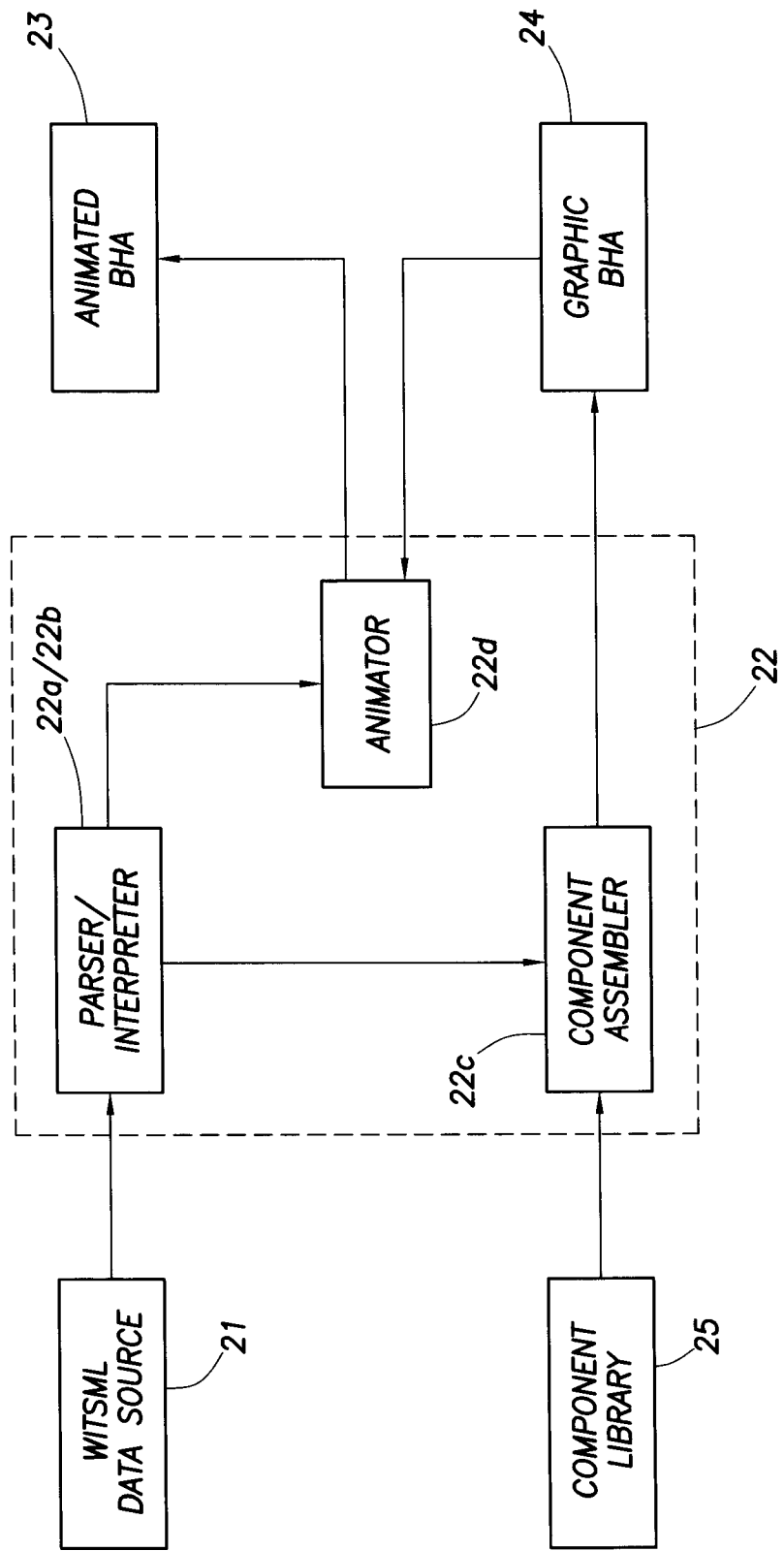


FIG. 3

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3/17

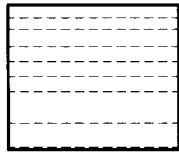


FIG. 4A

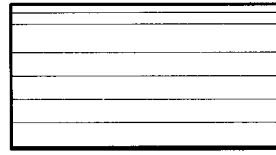


FIG. 4B

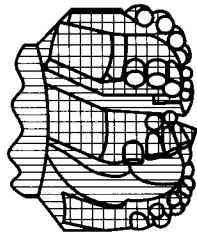


FIG. 4C

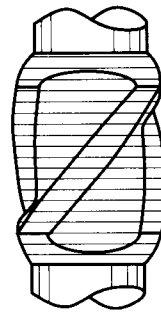


FIG. 4D

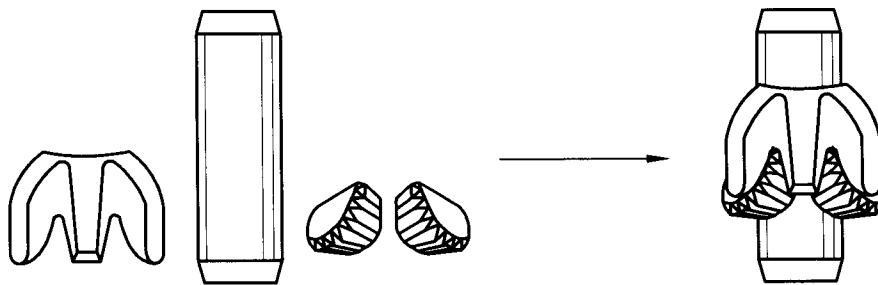


FIG. 5

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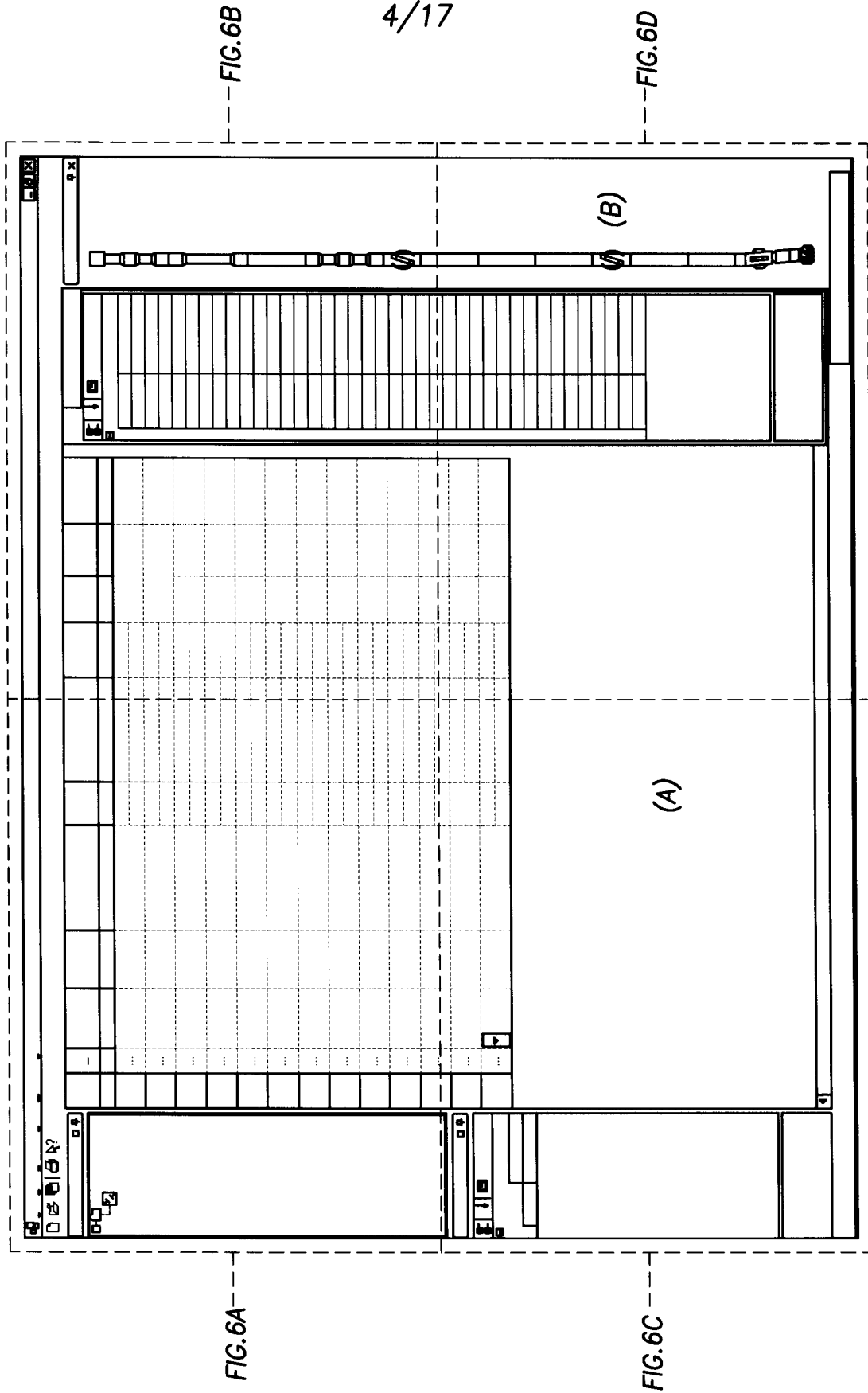


FIG. 6

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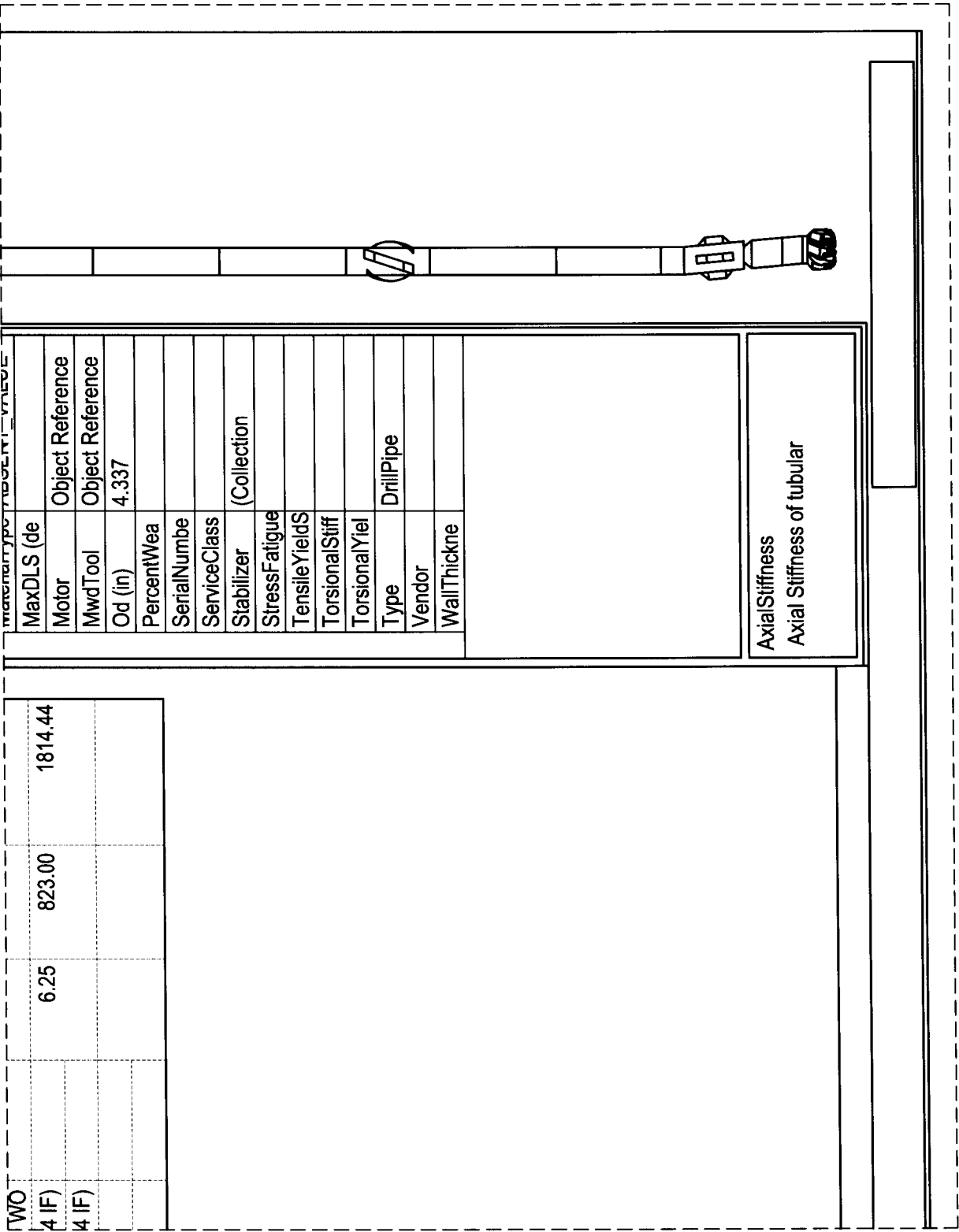
FIG. 6A

File Edit Format View Window Help							
<div> <div>File Manager</div> <div> <div>C:\temp\bha2.xml</div> <div>Bha 1</div> </div> </div>							
Item	C	Type	Serial Number	Description	OD / ID (in)	Top Connection / Bottom Connection	
1	...	BitPDCFixed Cutter		9 7/8" Bit	7.50		
2	...	Motor		A675S2380XP-AIM	6.75	Reg	Reg
3	...	MWDPulser		MWD	6.75	H90	H90
4	...	Stabilizer		Stab	3.00		
5	...	LWDTTool		LWD	5.50		
6	...	DrillCollar		Drill Collar	6.75		
7	...	SubCrossover		x-over	2.50	HT55	HT55
8	...	Stabilizer		Stab	6.75	NC50 (4 1/2")	NC50 (4 1/2")
9	...	HeavyWeight DrillPipe		Non-Magnetic Heavy Weight Drill Pipe	2.25	SL	SL
10	...	Jar		Jar	2.32	NC46 (4 1/2")	NC46 (4 1/2")
11	...	DrillPipe		4-1/2" 13.75 DPE, Class 2	1.82		
					4.50		
					2.75		
					4.75		
					1.86		
					4.34		

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7/17

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9/17

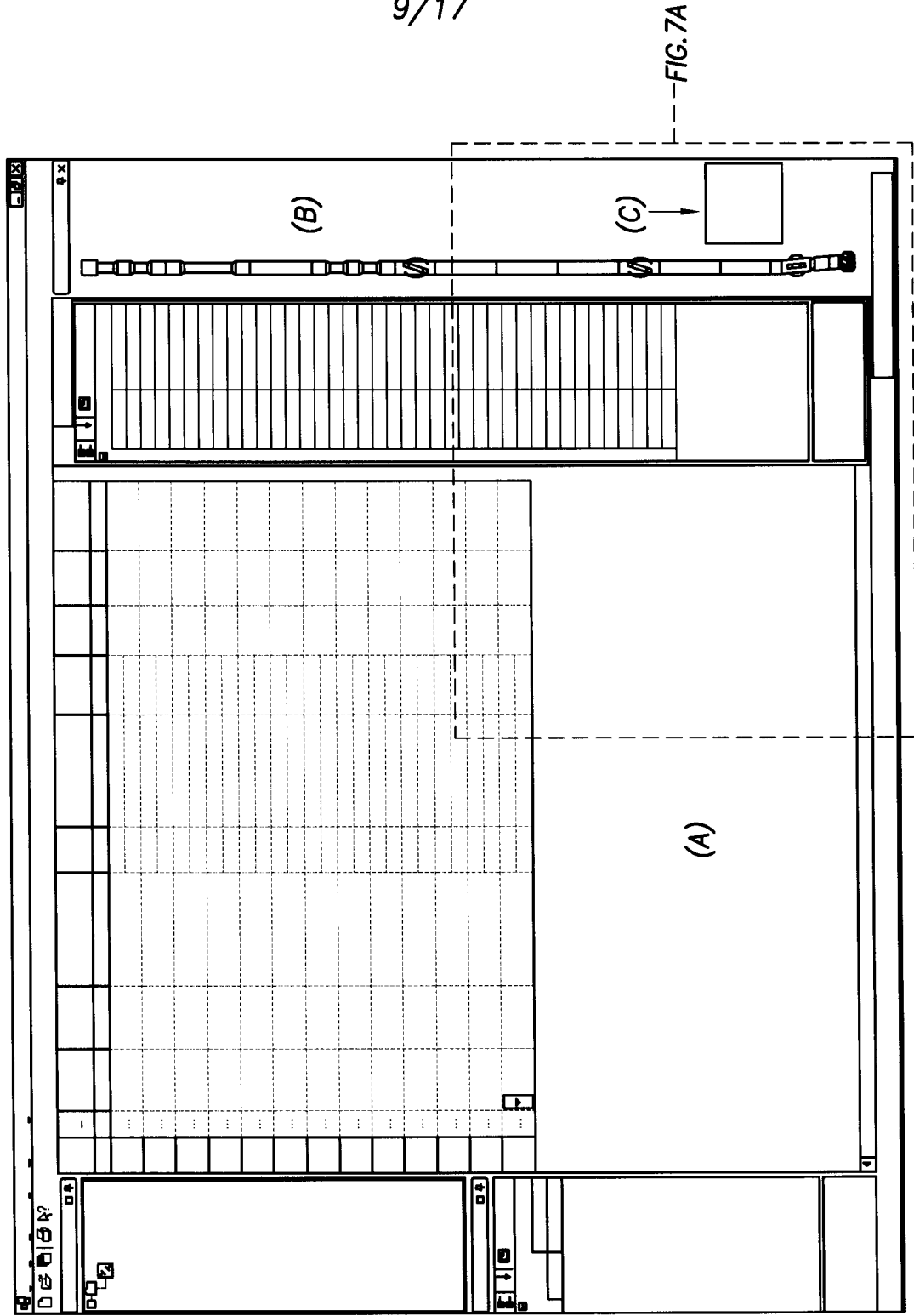


FIG. 7

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FIG.8D

FIG.8B

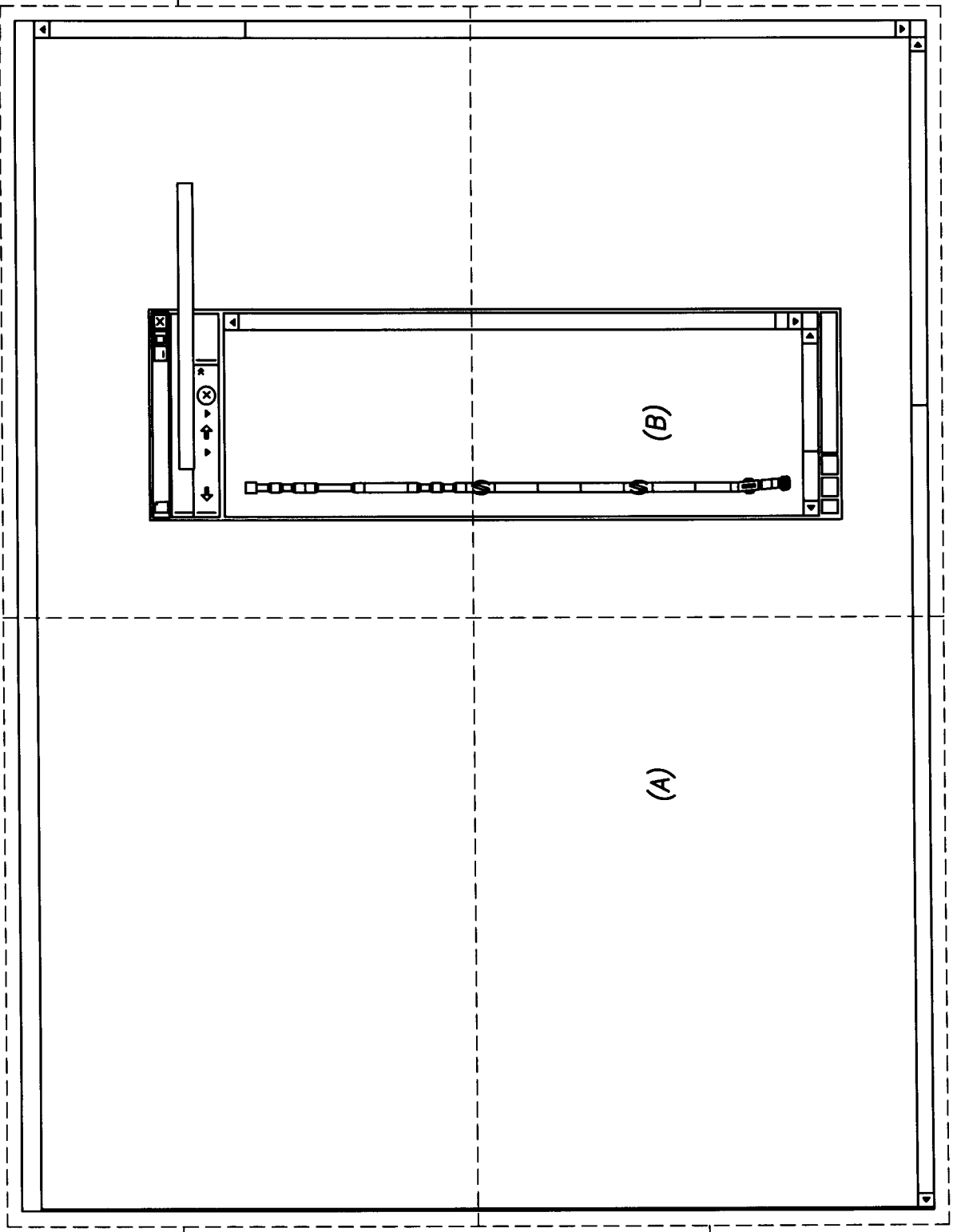


FIG.8A

FIG.8C

FIG.8

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12/17

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File Edit Format Help
<?xml version="1.0" encoding="utf-8"?>
<tubulars xsi:schemaLocation="http://www.witsml.org/schemas/120 http://www.witsml.
<tubular uidwell="34434" uidwellbore="2345" uidTubularAssy="45454" uidsource="">
  <namewell>Flash Well 1</namewell>
  nameWellbore>Flash Test</nameWellbore>
  nameTubularAssy>Bha 1</nameTubularAssy>
  <typeTubularAssy>DirectionalDrilling</typeTubularAssy>
  <valveFloat>>false</valveFloat>
  <sourceNuclear>>false</sourceNuclear>
  <tubularComponent>
    <typeTubularComp>BitPDCFixedCutter</typeTubularComp>
    <description>9 7/8" Bit</description>
    <id uom="in">3.25</id>
    od uom="in">7.5</od>
    len uom="ft">1.16</len>
    <wtPerLen uom="lbm/ft">122.89</wtPerLen>
    odDrift uom="in">9.87500000000001</odDrift>
    <vendor>Generic</vendor>
    <bitRecord>
      <diaBit uom="in">9.87200000000001</diaBit>
      <typeBit>RollerCone</typeBit>
    </bitRecord>
    <connection>
      <typeThread>Reg</typeThread>
      <sizeThread uom="in">6.625</sizeThread>
      <tqMakeup uom="ft.lbf">23601.9887768725</tqMakeup>
    </connection>
  </tubularComponent>
  <tubularComponent>
    <typeTubularComp>Motot</typeTubularComp>
    <description>A675S2380XP-AIM</description>
    <id uom="in">5.5</id>
    od uom="in">6.75</od>
    len uom="ft">29.08</len>
    <wtPerLen uom="lbm/ft">78.0999999999999</wtPerLen>
    <odDrift uom="in">7.5</odDrift>
  </tubularComponent>

```

FIG.8A

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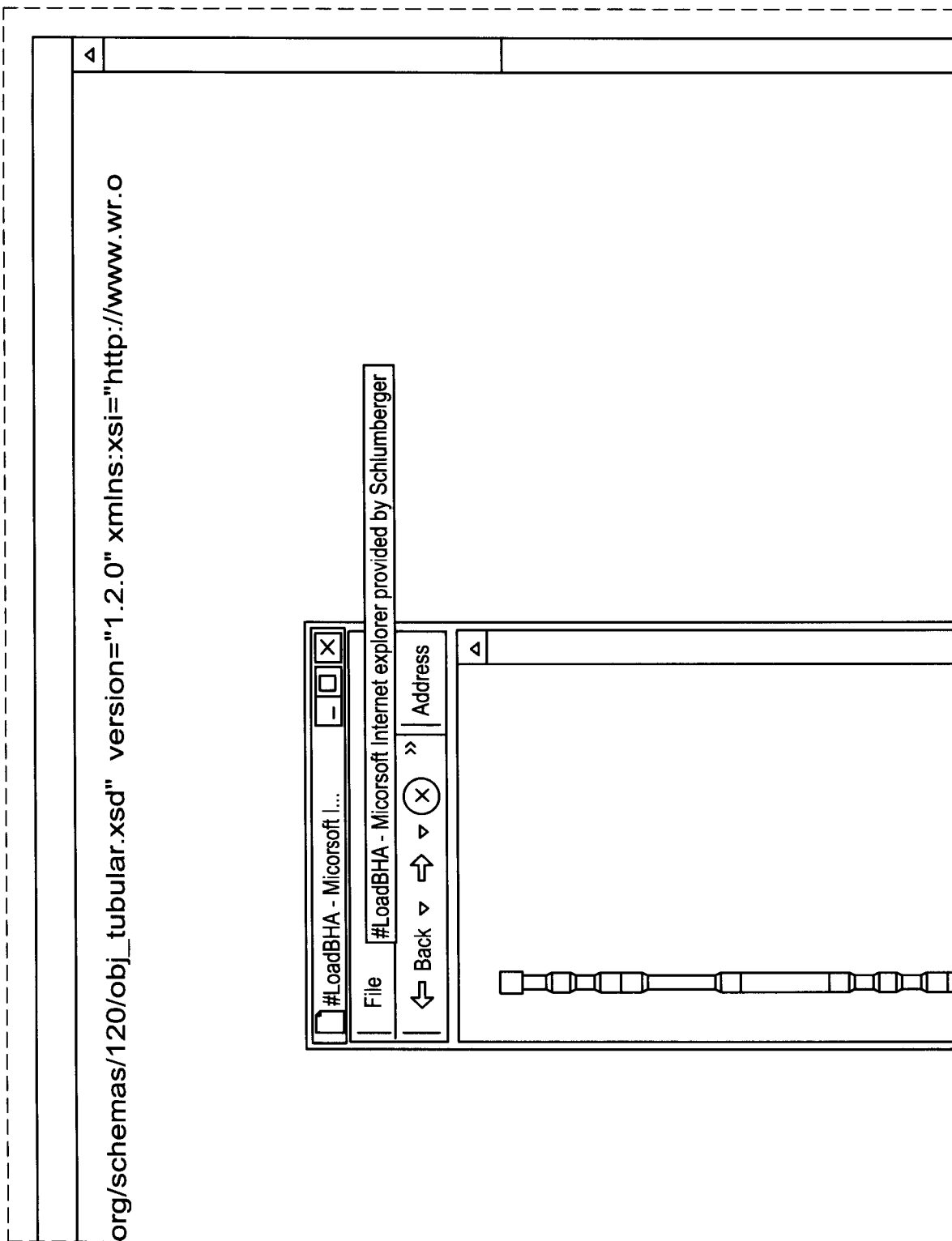


FIG.8B

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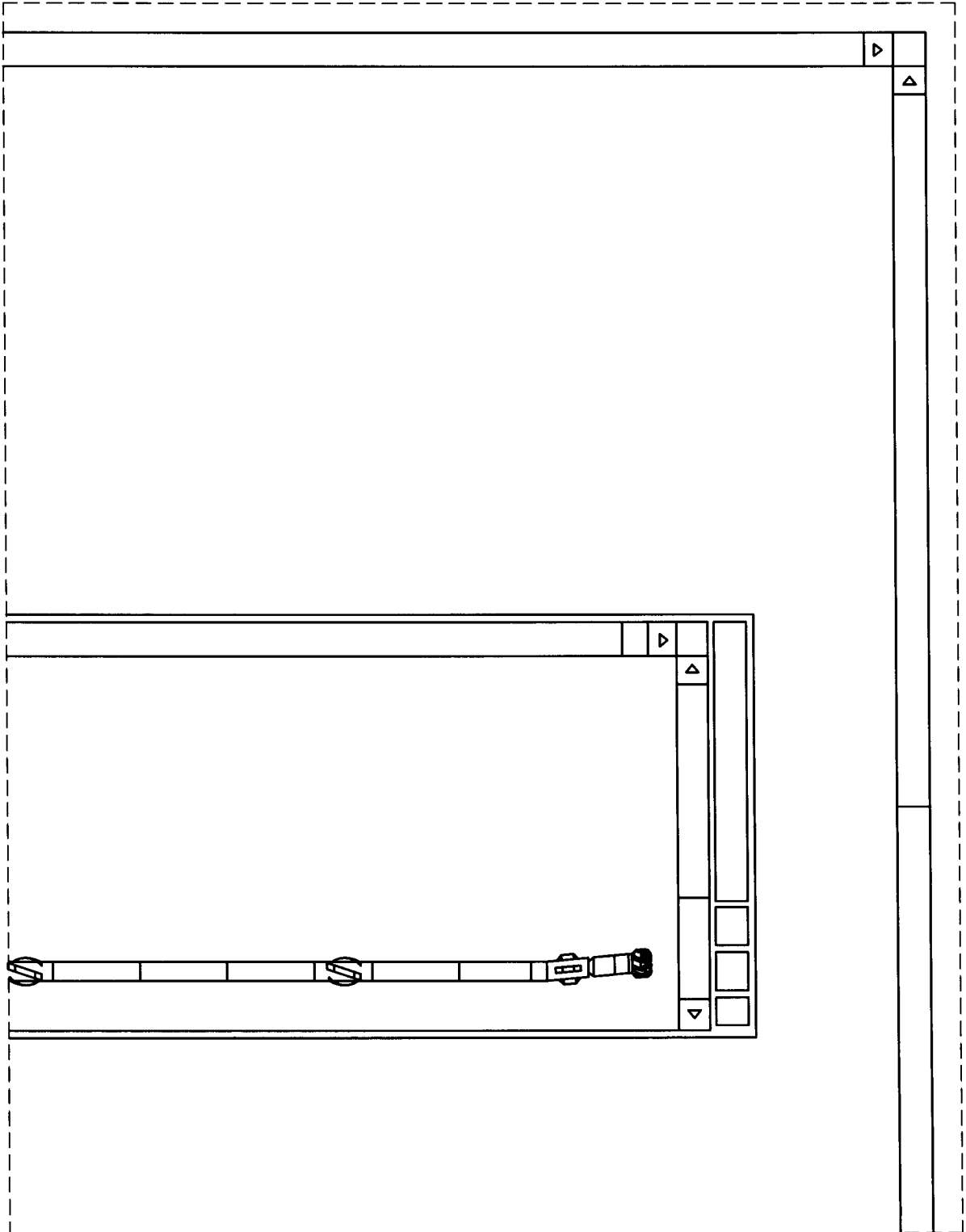
```

<cfgConn>PinBox</cfgConn>
<vendor>Schlumberger</vendor>
<connection>
  <typeThread>Reg</typeThread>
  <sizeThread uom="in">4.5</sizeThread>
  tqMakeup uom="ft. lbf">10325.8700898817</tqMakeup>
</connection>
<connection>
  <typeThread>Reg</typeThread>
  <sizeThread uom="in">4.5</sizeThread>
  <tqMakeup uom="ft. lbf">10325.8700898817</tqMakeup>
</connection>
<motor>
  <flowrateMn uom="bbl/d">300</flowrateMn>
  <flowrateMx uom="bbl/d">600</flowrateMx>
  <lobesRotor>2</lobesRotor>
  <lobesStator>3</lobesStator>
  <rotorCatcher>false</rotorCatcher>
  <dumpValve>false</dumpValve>
  <rotatable>false</rotatable>
</motor>
<stabilizer>
  <lenBlade uom="ft">1.17</lenBlade>
  <odBladeMx uom="in">8.37500000000001</odBladeMx>
  <distBladeBot uom="ft">1.23</distBladeBot>
</stabilizer>
<bend>
  <distBendBot uom="ft">8.59999999999999</distBendBot>
</bend>
</tubularComponent>
<tubularcomponent>
  <typeTubularCom>MWDPulser</typeTubularCom>
  <description>MWD</description>
  <id uom="in">3</id>
  <od uom="in">6.75</od>
  <len uom="ft">36</len>

```

FIG.8C

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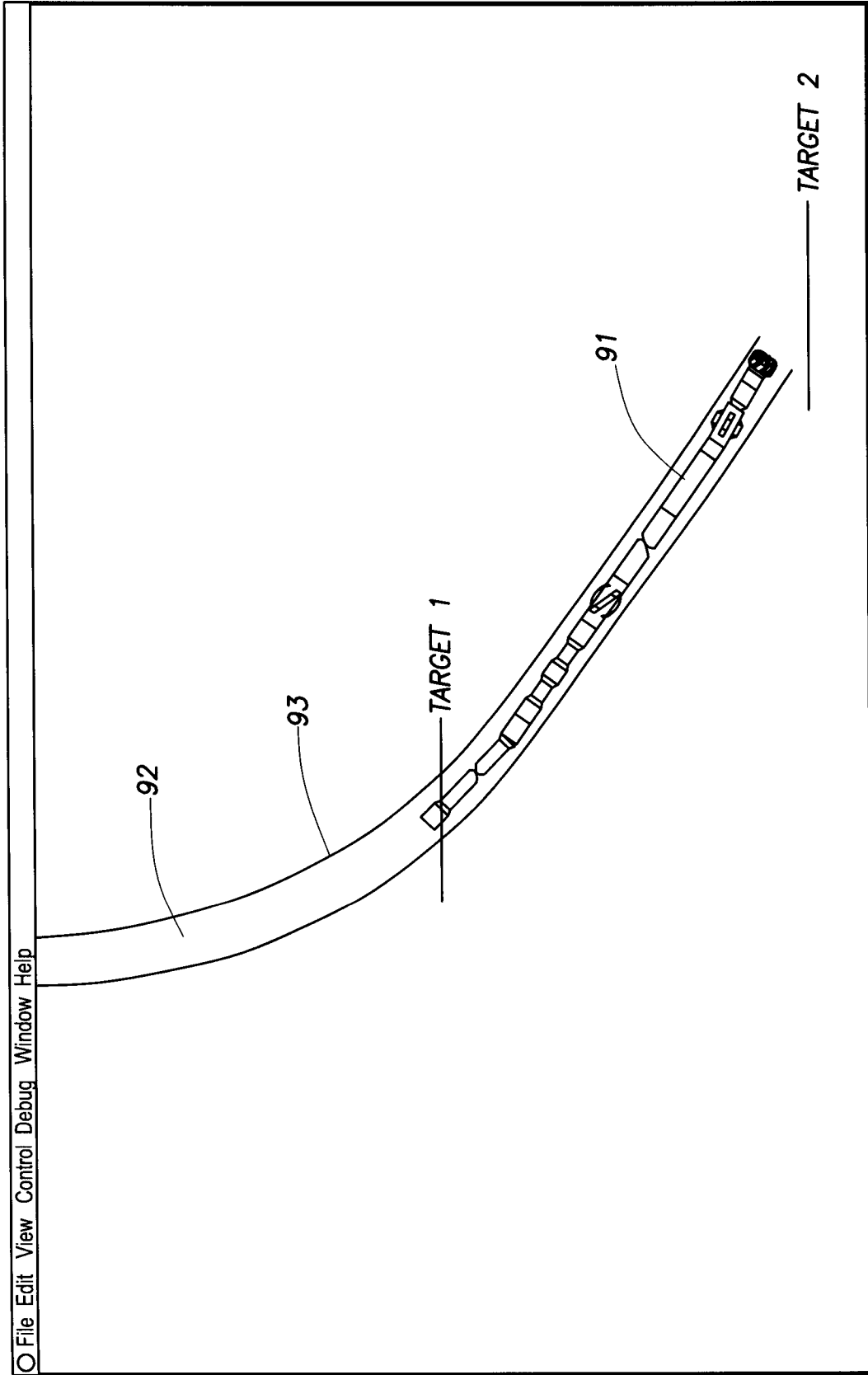


FIG.9

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17/17

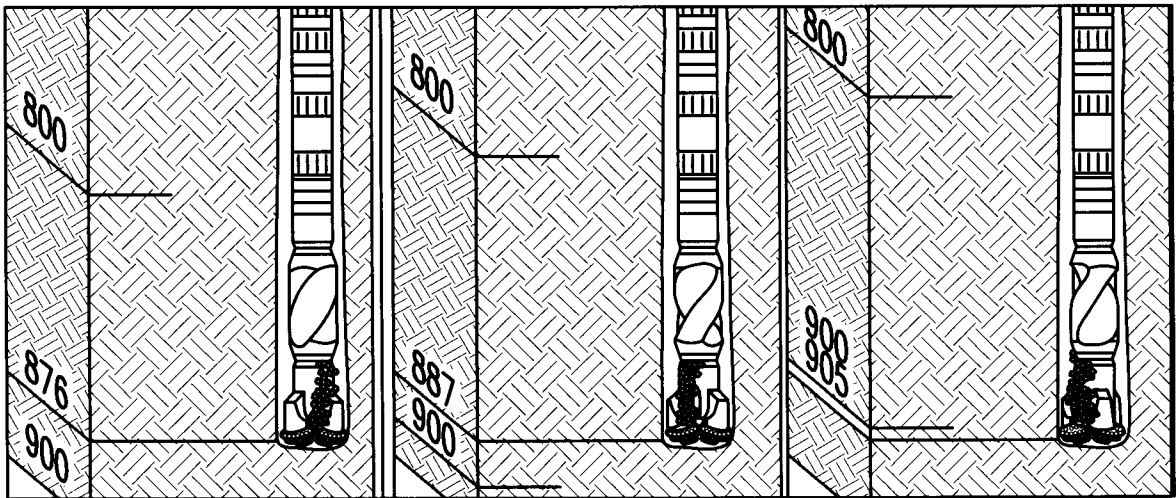
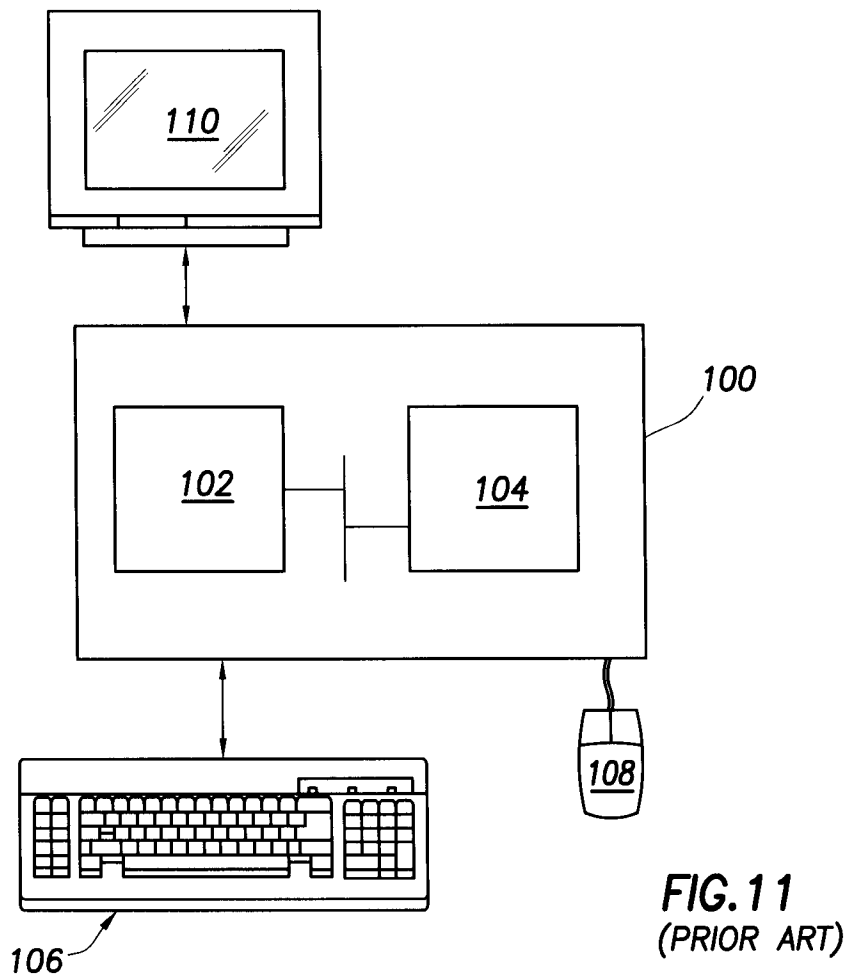


FIG. 10



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